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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,417	04/12/2001	Luke Matthew Browning	AUS920000868US1	1582

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EXAMINER

KNOLL, CLIFFORD H

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 10/02/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,417

Applicant(s)

BROWNING ET AL.

Examiner

Clifford H Knoll

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14, 18, and 19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 14 and 18, recitation of "instructions ... executed" (claim 14), and "product ... executed" (claim 18) is unclear, because it is not clearly established what further limitations are intended for the computer program product that is being claimed. It is not clear what statutory class of invention is being recited by the apparently method steps of "executing".

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 14, 18, and 19, rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The instant claims appear to recite both method steps and apparatus limitation.

"[A] claim which is intended to embrace both product or machine and process is precluded by language of 35 USC 101, which sets forth statutory classes of invention in

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alternative only, and is also invalid under 35 USC 112, second paragraph, since claim which purports to be both machine and process is ambiguous and therefore does not particularly point out and distinctly claim subject matter of invention." (See *Ex parte Lyell* 17 USPQ2d 1548).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-30 rejected under 35 U.S.C. 102(e) as being anticipated by McKenney (US 6480918).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 11, and 21, McKenney discloses the method and medium comprising means and apparatus whereof attempting to obtain a lock on a system

resource (e.g., col.7, lines 31-33), associating a hand-off lock with the lock on the system resource if the attempt to obtain the lock is unsuccessful and obtaining the hand-off lock (e.g., col.7, lines 36-38).

Regarding claims 2, 12, and 22, McKenney also discloses the lock is a simple lock (e.g., col.7, lines 28-29).

Regarding claims 3, 13, and 23, McKenney also discloses the hand-off lock is a krlock (e.g., col.12, lines 29-30).

Regarding claims 4, 14, and 24, McKenney also discloses attempting to obtain the lock a predetermined number of times (col.12, lines 35-39).

Regarding claims 5, 15, and 25, McKenney also discloses the hand-off lock obtained from a pool (col.12, lines 32-33).

Regarding claims 6, 16, and 26, McKenney also discloses storing an index of the hand-off lock in a lock word of the lock (e.g., col.7, lines 31-32, col.12, lines 27-35).

Regarding claims 7, 17, and 27, McKenney also discloses obtaining the lock (e.g., col.12, line 34-35), releasing the hand-off lock (e.g., col.12, lines 52-53) and handing it off to the next processor spinning it (e.g., col.12, lines 54-55).

Regarding claims 8, 18, and 28, McKenney also discloses the hand-off lock includes a per-node word, which contains a state of the hand-off lock on each node (e.g., col.12, lines 28-29), and a per-processor spin field for each processor (e.g., col.12, lines 52-53).

Regarding claims 9, 19, and 29, McKenney further discloses when the lock is released the per-node and preprocessor fields are updated (e.g., col.12, lines 52-53).

Regarding claims 10, 20, and 30, McKenney also discloses the method implemented on one of a SMP, a NUMA, and a ccNUMA system (e.g., col.5, line 49).

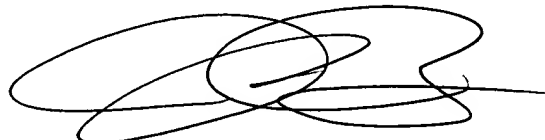
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McKenney (US 2002/0087769) discloses similar subject matter available as prior art under 35 USC 102(e). In particular, McKenney discloses distinct levels of locking in a multiprocessor (e.g., NUMA) environment. Vartti (US 5678026) discloses multiple level locks. Farley (US 6105085) discloses multi-level locking directed towards simple locking and reserving.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.



MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
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chk